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**Joint
Advanced
Warfighting
Program**

INSTITUTE FOR DEFENSE ANALYSES

Thoughts on Effects-Based Operations, Strategy, and the Conduct of War

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With LTC Kevin Woods, USA

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Preface

This paper was prepared under the task order Joint Advanced Warfighting Program (JAWP) for the Director, Defense Research and Engineering, in the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics. It helps address the task order objective of assisting the Department of Defense in exploring breakthrough capabilities for the future joint force commander.

JAWP was established at the Institute for Defense Analyses (IDA) to serve as a catalyst for stimulating innovation and breakthrough change. It is co-sponsored by the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Under Secretary of Defense for Policy; the Vice Chairman of the Joint Chiefs of Staff; and the Commander, United States Joint Forces Command (JFCOM). JAWP includes military personnel on joint assignments from each Service and civilian specialists from IDA. JAWP is located in Alexandria, Virginia, and includes an office in Norfolk, Virginia, to facilitate coordination with JFCOM.

This paper does not necessarily reflect the views of IDA or the sponsors of JAWP. Our intent is to stimulate ideas, discussion, and, ultimately, the discovery and innovation that must fuel successful transformation.

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Executive Summary

The interest in American military thinking and doctrine on the conduct of effects-based operations has until recently focused on the tactical sphere: targeting, precision strike, and the enabler of stealth. That has largely resulted from the impact of the successes of the Gulf War, particularly the first night's strikes. Yet, in war the psychological impact of military actions has, in most cases, been far more important than the destruction of targets, military formations, or industrial production. Nations fight war for political reasons. It is military actions and their effects on the minds of the enemy that matters most.

Moreover, political and strategic decision-making has been the crucial element in victory or defeat in war. Thus tactical effects, no matter how impressive, will rarely overcome the negative impacts of a fundamentally flawed strategy. Policy makers must develop a coherent and adaptable strategy that provides a realistic framework, balancing ends and means, for joint force commanders responsible for developing an effects-based campaign. The development of that framework with a realistic balance of means and ends requires hard, honest discourses between the operational commander in the field and the policy makers responsible for determining the strategic course.

Consequently, the political and strategic outcome must exerciser a preponderant influence over the development of military actions and hoped-for effects. There is a dynamic in effects-based thinking. How the political leadership intends to achieve a political purpose and how it intends to conduct a war *will* alter as military operations unfold and as the political context changes over time. Any effects-based approach must recognize this reality implicitly. Effects-based thinking must also recognize the enemy as he is, not as we wish him to be. Mirror imaging is the death of any hope for the conduct of an effects-based campaign. That understanding of the enemy must then be balanced against a realistic understanding of our own weaknesses and our strengths.

In the evolution of the strategic framework, military leaders must contribute to the understanding of strategic decision makers as to the potential costs as well as the possible limitations on the employment of force. Such an understanding is indeed a two-way street, for it is the operational commander, the joint force commander in current parlance, who must also gain a clear understanding of the strategic ends that policy makers seek. In the end he must translate the strategic and political outcome,

for which a war is being fought, into its operational context.

The discourses between the military and strategic decision makers are the essential heart of achieving the balance between means and ends. Such discourses cannot be a simple, bureaucratic process; rarely will they will occur where argument and the clash of personal wills are absent. And more often than not, the conclusions of the process will involve ambiguities and uncertainties driven by misunderstandings as to the nature of the enemy and his goals.

The operational commander's existence must always be one of tension among a trinity that consists of reflections and estimates as to what must be achieved as well as what has been achieved (effects), of discourses to understand what the intentions of others might be and to make clear his own views as to what can and must be achieved, and of ruthless, swift actions to achieve the strategic ends. It is the translation of strategic concept into actual military actions that has represented the greatest difficulty to commanders in the past, and there is no reason to believe that matters will change in the future.

The 1986 edition of U.S. Army Field Manual 100-5 posited three questions for the operational commander and his planners:

(1) What military conditions [effects] must be produced in the theater of war or operations to achieve the strategic goal?

(2) What sequence of actions is most likely to produce that combination [ways]?

(3) How should the resources of the force be applied to accomplish that sequence of actions [means]?

How the joint force operational commander frames those questions is essential to establishing the effects his forces must aim to create. In order to frame the proper response to the operational military requirements the joint force commander and his staff must feel comfortable that they have addressed the following questions:

▸ What effects are required to achieve the strategic ends? What means are available, immediately and in the long run?

▸ What are the potential pay offs for particular military actions in an operational sense? In a strategic sense?

▸ Are the costs of achieving particular effects too high in political terms? In military terms? What are the potential negative effects that could come as the result of military actions?

▸ Above all, is there a realistic balance between the ends and the means required to achieve the effects that will lead to the strategic goals?

The processes of strategic decision-making have never been clear or easy. The future will always remain opaque

and uncertain, as human institutions attempt to chart their course. Our aim must be to establish habits of thought and processes so that whether at the onset of some great crisis or in its midst, policy makers and military leaders have the opportunity to ask the right questions such as:

- What are America's strategic goals? What should the outcome look like?

- What kind of *political* and *military effects* are needed? How might military actions and effects best achieve those *political* ends?

- What realistic possibilities are open to the enemy? And how could we best react to unexpected courses of action by our opponents?

How might we best adapt our efforts as the context—whether political, strategic, or operational—changes? Can we adapt our efforts if the context proves impervious to change? Can we adapt if our understanding, based on poor assumptions and preconceived notions, proves faulty?

The discipline of approaching each crisis and challenge within a disciplined framework offers the best possibility of asking the right questions. We cannot ever expect to have the answer to the inevitable challenges and crises of the twenty-first century. But we can at least be prepared to ask the right questions.

Thoughts on Effects-Based Operations, Strategy, and the Conduct of War

Introduction

Over the past decade the U.S. military has become increasingly interested in effects-based operations. To a considerable extent the take-down of Iraq's integrated air defense system during the opening hours of the 1991 Gulf War sparked this interest.[1] That successful operation relied on an articulated mixture of stealth, precision, and electronics counter measures to destroy Iraq's ability to defend itself from Coalition air power. Guided by a carefully planned concept of operations, U.S. aircraft destroyed key command and control nodes in Iraq's air defense system, and many of Iraq's anti-aircraft missile sites. The end result of the first night's attack was the general collapse of the Iraqi air defense system in a matter of hours—a system that had included some of the most advanced technologies available in the West and the Soviet bloc.[2]

To some the combination of stealth and precision indicated that a revolution in military affairs had occurred.[3] To others the successful employment of air power suggested that a careful analysis and targeting of the enemy's economic, or tactical systems could achieve far larger effects than simply racking up targets and destroying them one at a time.[4]

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[1] For a short background discussion of the historical development of the effects-based operations concept, see Appendix A of this paper. For the historical antecedents to effects-based operations, see Williamson Murray et al., *An Historical Perspective on Effects Based Operations*, IDA Paper P-3606, Institute for Defense Analyses, Alexandria, VA, December 2002.

[2] For a discussion of the success and the problems involved in the air war against Iraq, see Williamson Murray, "Air War in the Gulf: The Limits of Air Power," *Strategic Review*, Winter 1998. See also Williamson Murray, *Operations*, vol. 2, report 1, *Gulf War Air Power Survey*, ed. by Eliot A. Cohen (Washington, DC: U.S. Government Printing Office, 1993).

[3] As early as the mid-1980s the Soviets began writing about a military-technological revolution. In particular Marshal Nikolai V. Ogarkov argued that the advances in non-nuclear weapons—including the development of "automated reconnaissance-and-strike complexes," long-range and high-accuracy munitions, and electronic-control systems—"make it possible to increase (by at least an order of magnitude) the destructive potential of conventional weapons, bringing them closer, so to speak, to weapons of mass destruction in terms of effectiveness." Interview with Marshal of the Soviet Union N.V. Ogarkov, "The Defense of Socialism: Experiences of History and the Present Day," *Krasnaya zvezda*, 1st edition, 9 May 1984, pp. 2-3.

[4] For a specific discussion of effects-based thinking on the conduct of air operations during the Gulf War, see Barry Watts, *Effects and Effectiveness*, vol. 2, report 2, *Gulf War Air Power Survey*, ed. by Eliot A. Cohen (Washington, DC: U.S. Government Printing Office, 1993).

Unfortunately, advances in conceptual thinking have not matched the advances in technology and precision over the past two decades. Instead, much of the thinking about the uses of precision and stealth to create effects-based operations has focused on the tactical employment of weapons systems. Moreover, the emphasis on stealth and precision has also led military thinkers to focus on target destruction rather than on the psychological impact of military actions. And yet the history of war throughout the twentieth century, as well as the rest of military history, suggests that it is the latter—the psychological impact of military actions—that matters. As Napoleon's most famous military maxim notes: "The moral is to the physical as three is to one," a comment that he reiterated from his exile in St. Helena: "Moral force, rather than numbers, decides victory."[5] Clausewitz fully agreed. In the opening book of *On War*, he notes that "*War is thus an act of force to compel our enemy to do our will* [italics in the original]."[6] War remains very much a psychological endeavor because it aims not only at achieving political goals but at affecting the mind of the enemy.

It would seem that the most significant contribution that effects-based thinking could make to the conduct of war in the twenty-first century would lie in the operational and strategic realms. No matter how impressive the conduct of effects-based operations might be at the tactical level, there is no guarantee that linkages will exist to the strategic and operational levels without a considerable intellectual effort to think through the potential effects of policy decisions and strategy, or the possible contributions that tactical actions might make to the achieving of operational or strategic effects. The cruise missile attacks on Osama bin Laden's terrorist camps in the 1990s hit their targets with exquisite precision. Undoubtedly, those attacks killed a number of potential terrorists. However, they achieved little at the strategic and operational levels—at least as far as America's war on terrorism goes, a fact that September 11th, 1991, revealed all too graphically.[7]

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[5] David Chandler, *The Campaigns of Napoleon* (New York: Macmillan Publishing Co., 1966), p. 155.

[6] Carl von Clausewitz, *On War*, trans. by Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1975), p. 75.

[7] At the time there was some discussion of the "potential risks" of such courses of action, but those worries were dismissed in favor of a decisive response. Effects-based approaches must create the ability to view strategies and operational choices in a wider context than the traditional crisis action planning (by the Defense Department) or advanced planning (by the State Department).

This paper examines effects-based operations from a different perspective than most commentators have far so taken:

> How should U.S. policy makers and military leaders use effects-based operations to achieve strategic, operational, and psychological effects, rather than focusing such operations solely on the technological or tactical problems involved in hitting targets.

Effects-Based Operations
at the Strategic Level

The military lessons of wars in the twentieth century suggest that it is at the political and strategic levels that wars are won or lost—rarely at the operational and never at the tactical. As the summary article of a major study on military effectiveness dealing with the first half of the last century suggests:

> No amount of operational virtuosity... redeemed fundamental flaws in political [and strategic] judgment. Whether policy shaped strategy or strategic imperatives drove policy was irrelevant. Miscalculations in both led to defeat, and any combination of politico-strategic error had disastrous results, even for some of the nations that ended the war as members of the victorious coalition. Even the effective mobilization of national will, manpower, industrial might, national wealth, and technological know-how did not save the belligerents from reaping the bitter fruit of [strategic] mistakes. This is because it is more important to make correct decisions at the political and strategic level than it is at the operational and tactical level. Mistakes in operations and tactics can be corrected, but political and strategic mistakes live forever.[8]

If the political and strategic decisions are the crucial element in the utilization of military power to achieve national goals, then how might strategic decision makers use the concept of effects-based operations to further the articulation and conceptualization of strategy?[9] First of all, the development of a *campaign* that rests on effects-based operations must begin with the development of a realistic set of goals that will lead to an understood political outcome. In other words, policy makers must have a coherent vision of the strategic outcome towards which military force will aim. Accordingly, they must develop a coherent and adaptable strategic framework that provides realistic guidance to

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[8]   Allan R. Millett and Williamson Murray, "The Lessons of War," *The National Interest*, Winter 1988/1989, p. 85.

[9]   For the complex processes involved in the making of strategy through the ages see Williamson Murray, MacGregor Knox, and Alvin Bernstein, *The Making of Strategy: Rulers, States, and War* (Cambridge: Cambridge University Press, 1994).

the joint force commander responsible for developing an effects-based campaign. And the discourses that take place between the operational commander (the joint force commander) and strategic decision makers are essential to these processes.[10]

In the past the creation of such a vision has often represented a difficulty that has bedeviled policy makers. And yet without some coherent and intelligent strategic vision towards which policy and military action can aim, the results, more often than not, have been disastrous. In 1914 none of the major powers embarked on war with a clear idea of their desired strategic outcome, or the potential cost they might have to pay. Once committed, they discovered themselves in a conflict, the cost of which was so horrendous that they had no choice but to continue—the immediate political price of admitting that the war had been a mistake was so high that European political leaders simply soldiered on, risking even greater catastrophe, rather than adapt politically to the strategic and military realities.

In one of the few cases of political or strategic wisdom displayed by a German general in either world war, General Erich von Falkenhayn, chief of the Imperial General Staff and War Minister, argued in November 1914 that Germany could not win the war and that it would be advantageous to make peace sooner than later. The German Chancellor, Theobold von Bethmann Hollweg, simply refused to consider the proposal and "informed Falkenhayn that he was prepared to fight to the bitter end, no matter how long it might take."[11]

Even in 1939 British statesmen had no clear idea of the outcome of the conflict on which they embarked except that it should result in the removal of Adolf Hitler.[12] Ironically, it was the defeat of France and their resulting daunting strategic position that

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[10] The Joint Advanced Warfighting Program at the Institute for Defense Analyses is in the process of defining discourses in its briefings on effects-based operations as "A continuous exchange of ideas or opinions (with feedback), 1) on particular issues, 2) To seek clarity, and 3) with a view to reaching a dynamic agreement." The nature of the discourses that a joint force commander should conduct will "take many forms," "occur at many levels," "should be ongoing (circumstances and environments are ever changing, so agreements are ever changing, end state is rarely [if ever] reached)…Should be intellectually rigorous (Encourage debate, Require honesty between all participants, Create effective feedback loops." Joint Advanced Warfighting Program Brief, *Discourses and the Joint Force Commander*, December 2001.

[11] Holger Herwig, *The First World War, Germany and Austria Hungry, 1914-1918* (London: Arnold Publishers, 1997), pp. 116-117.

[12] It was not until the catastrophic defeat of France in the spring 1940 campaign that the new leadership in Britain recognized that national survival was at stake and that their country had no choice but to aim at the absolute defeat of Nazi Germany.

led the British to articulate as their goal the complete defeat of Nazi Germany. For Americans, the uncertain objectives and goals of the American government towards the Vietnam conflict in 1964 and 1965 and the resulting miscalculations led to a disaster, the extent of which all too clearly reinforced the penalties that result from the failure to establish a clear vision of the strategic outcome that those who seek to employ military power should seek.[13] No matter how impressive the military virtuosity of the American military forces and performance at the tactical level, the results of the war were foreordained.

It is the political and strategic outcome that policy makers seek that must exercise the greatest influence over the development of military actions and effects. As Clausewitz suggests in *On War*:

> The political object—the original motive for the war—will thus determine both the military objective to be reached and the amount of effort it requires. The political object cannot, however, *in itself* provide the standard of measurement. Since we are dealing with realities, not with abstractions, it can do so only in the context of the two states at war. The same political objective can elicit *differing* reactions from differing peoples, and even from the same people at different times. We can therefore take the political object as a standard only if we think of *the influence it can exert upon the forces it is meant to move.* The nature of those forces therefore calls for study. Depending on whether the characteristics increase or diminish the drive towards a particular action, the outcome will vary. [italics in the original][14]

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[13] For the misapprehensions and cloudy decision making that drove U.S. policy towards the cliff of major intervention in the Vietnam War in 1964 and 1965, see H. R. McMaster, *Dereliction of Duty, Lyndon Johnson, Robert McNamara, The Joint Chiefs of Staff and the Lies That Led to Vietnam* (New York: Harper Collins Publishers, 1997). In 1966 Moshe Dayan undertook extended visits to the United States and Vietnam to research an article he was writing for several Israeli newspapers on what it was that the Americans were doing in Vietnam. After his journeys to the United States, which included meeting with Robert McNamara and a number of senior military leaders, and to Vietnam which included going out on patrol with Lieutenant Charles Krulak, USMC, Dayan returned to Israel enormously impressed with the energy and enthusiasm of the Americans. But *nowhere* had he found any American politician, civil servant, or military leader who could tell him what the strategic outcome towards which all this energy and enthusiasm was directed. Dayan was so depressed by what he had seen and heard that he returned directly to Israel instead of passing back through Washington, as he had originally intended. I am indebted to Professor Martin van Creveld of the Hebrew University in Jerusalem for this story.

[14] Clausewitz, *On War*, p. 81.

To extend Clausewitz's argument into the twenty-first century, his admonishment to be clear on the political purpose and operational objectives is made much more dynamic with effects-based thinking. How the political leadership intends to achieve a political purpose and how it intends to conduct a war will alter as military operations unfold and the political context changes. Any effects-based approach must rest on this reality.

Nevertheless, the devising of an outcome towards which national policy strives is not enough. Policy makers and military leaders must also develop a realistic understanding of the nature of their opponent, if they are to determine a sensible strategic course. What might be the enemy's goals? What are his political, economic, and military strengths? What are his weaknesses? How do his culture and his political system influence the choices his leadership will make? What is he willing to sacrifice in the pursuit of his objectives? What does history suggest about what his potential courses of action? And how will he react to the actions that are taken against him?

Above all, it is the intangibles that matter in such a calculus. And the most difficult intangible of all to gauge in that context is the will of the enemy.

> If you want to overcome your enemy you must match your effort against his power of resistance, which can be expressed as the product of two inseparable factors, viz. *the total means at his disposal* and *the strength of his will*. The extent of the means at his disposal is a matter—though not exclusively—of figures, and should be measurable. But the strength of his will is much less easy to determine and can only be gauged approximately by the strength of the motive animating it.[italics in the original][15]

Keep in mind that the simple calculation of numbers of aircraft, tanks, and other weaponry, or technological sophistication that the enemy brings to the battlefield—factors that have enthralled intelligence communities throughout the ages—have all too often proven irrelevant in the past.[16] It is the intangibles of the enemy's will and an under-

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[15] Clausewitz, *On War*, p. 77.

[16] The real triumph of Ultra in the Second World War lay not only in the technological wizardry that resulted in the breaking of the Enigma encoding machine, but also in the insights that German speaking humanists and cultural experts brought to Bletchley Park and their interpretation of the decoded intercepts of the top secret German radio traffic. That understanding was crucial to winning the Battle of the Atlantic, for example. It is a sad comment on what passes today in the United States for defense analyses that few if any of the myriad articles on information war ever mention Ultra, when World War II was the first true information war with considerable implications for thinking about information war in the twenty-first century.

standing of him as a complex adaptive system towards which policy makers and military leaders must focus their attention.

We are not talking about defaulting to worst case, that favorite fall-back position of bureaucracies, when confronting dangerous strategic problems. For example, British strategic policy in the late 1930s foundered not only on the misreading of the nature of Hitler and his regime by the appeasers, but on the worst case strategic appreciations of their military advisers.[17] An understanding of the nature of the enemy requires a real knowledge of his strengths and *his weaknesses*. In the summer and fall of 1990, U.S. policy makers and military leaders assessed the strength of the Iraqi regime as being the effectiveness of its military institutions, and its weak points as lying in the political stability of Saddam Hussein's regime.[18] The course of the Gulf War and its aftermath showed that analysis was 180 degrees out of kilter. And that miscalculation of Iraqi strengths and weaknesses at the strategic level had a serious impact on the conduct of the war and the armistice that U.S. negotiators accepted in February 1991. Simple military defeat, even of the most catastrophic kind, cannot in the end overthrow a ruthlessly politically effective tyranny such as that run by a Saddam Hussein or a Joseph Stalin.

To a considerable extent the questions that policy makers need to address require a true net assessment of one's own political will and military capabilities as well as those of the enemy. As Adolf Hitler once noted to his generals, what matters in war and politics are not the raw numbers, but rather the actual balance of forces and will in any military confrontation.[19] Policy makers and military leaders need to consider also the willingness

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[17] The dismal strategic appreciations of the military balance by the British Chiefs of Staff over the course of the late 1930s (and French military leaders as well) provided the Chamberlain government with almost irrefutable arguments in summer 1938 that Czechoslovakia could not be defended. For a further examination of this line of argument and why in retrospect the situation was not nearly as advantageous for the Germans as British military planners thought, see Williamson Murray, *The Change in the European Balance of Power, The Path to Ruin* (Princeton, NJ: Princeton University Press, 1985), chapter 7.

[18] And there were serious scholarly works available in the academic world that indicated the serious flaws in U.S. strategic calculations, the most important of which was apparently not consulted by planners or intelligence analysts. See in particular Samir al-Khalil, *Republic of Fear, The Politics of Modern Iraq* (Berkeley, CA: University of California Press, 1989).

[19] What this paper aims to suggest is the necessity for a real, deep net assessment of the enemy—one that does not stop at the careless, mushy concepts developed so far by the U.S. military (such as operational net assessment), but rather casts net assessment in terms of the thinking of Andrew Marshal and his Office of Net Assessment. For an examination of how difficult such processes have been in the past (in this case in the immediate run-up to World

of their own population to "bear any burden, pay any price" in terms of the conflict they confront.[20] Moreover, there are often limits on the use of military power that they must factor into their calculations.[21]

Military force does not exist in a world separate from the political goals and outcomes, for which it is being used. In 1827 Clausewitz was asked to comment on two strategic exercises the general staff had set for its officers dealing with a possible war between Prussia and Austria. Clausewitz sent back a note that he could make little sense of the problems that had been posed, since they provided virtually no political context for the potential military operations. He then added:

> War is not an independent phenomena, but the continuation of politics by other means. Consequently the main lines of every major strategic plan are *largely political in nature*, and their political character increases the more the plan applies to the entire campaign and the whole state. A war plan results directly from the political conditions of the two warring states, as well as from their relation to third powers.... According to this point of view, there can be no question of a *purely military* evaluation of a strategic issue, or of a purely military scheme to solve it. [italics in the original][22]

In *On War*, Clausewitz was equally emphatic on the interrelationship between the strategic and operational in thinking about the future conduct of war:

> War plans cover every aspect of a war, and weave them all into a single operation that must have a single, ultimate objective in which all particular aims

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War II), see Williamson Murray and Allan R. Millett, *Calculations, Net Assessment and the Coming of the Second World War* (New York: The Free Press, 1992).

[20] The problem that American policy makers refused to consider with regards to intervening in Vietnam in spring 1965 had largely to due with the willingness of the American people to support a lengthy war with heavy casualties, when there was no clear threat to American interests, much less to the United States itself. What those who emphasize the supposed casualty averse attitudes of the American people since Vietnam have largely missed is the fact that democracies need, clear unambiguous threats to their existence before they will bear heavy sacrifices. That threat existed in 1941; it did not exist in 1965.

[21] Especially in the coming decades of the twenty-first century, those limitations, often imposed by the international community, popular perceptions, and the political context of conflict will exercise considerable influence over the conduct of virtually all military operations conducted by the United States. The American military may never again find itself in a position analogous to the context of almost unlimited will that marked the nation's conduct of the Second World War.

[22] Peter Paret, *Clausewitz and the State* (Oxford: The Clarendon Press, 1976), pp. 379-380.

are reconciled. No one starts a war—or rather, no one in his senses ought to do so—without first being clear in his mind what he intends to achieve by that war and how he intends to conduct it. The former is its political purpose; the latter its operational objective. This is the governing principle which will set its course, prescribe the scale of means and effort which is required, and make its influence felt throughout down to the smallest operational detail.[23]

The strategic framework demands an understanding of the threat and the political context in the widest sense, an understanding of oneself and the price one's society is capable of bearing, as well as the perceptions of the international arena within which the conflict will occur. Without that broader perspective, military forces will accomplish little more than *faith-based operations*, no matter how much they may concentrate on achieving specific tactical effects.[24] And in the end they may cause a disastrous strategic and political outcome, no matter how well they perform on the battlefield.[25]

Accordingly, those at the highest levels must begin by asking sharp and penetrating questions as to the possible strategic and political effects that potential military courses of action might have. Those discussions must never abandon a recognition that a potential enemy may react differently than expected, or that international opinion may have unexpected influence over potential courses of action, or that chance as always in human affairs may exercise its baleful influence. Man lives in an uncertain and ambiguous universe,[26] where chance can affect the best laid strategic plans in the most disastrous

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[23] Clausewitz, *On War*, p. 579.

[24] In particular the Germans egregiously concentrated on the tactical and operational levels of war and entirely ignored the strategic dimensions of the conflicts they were waging. See Williamson Murray, *German Military Effectiveness* (Baltimore, MD: Nautical and Aviation Press, 1985), chpt. 1.

[25] The Germans in their performance in two world wars best exemplify the extraordinary danger of failing to develop a strategy that best fits the strengths and weaknesses of the strategic situation. A comparison with the brilliance of Bismarck's strategic sense is indeed instructive as to the crucial importance to getting it right at the political and strategic levels of war.

[26] For a clear depiction of why friction and ambiguity will always remain as basic elements not only in the conduct of war but also in the whole international arena see Barry D. Watts, *Friction in Future War* (Washington, DC: National Defense University Press, 1996). Clausewitz commented on the role of chance in war in the following terms: "No other human activity is so continuously bound up with chance. And through the element of chance, guesswork and luck come to play a great part in war." Clausewitz, *On War*, p. 85.

way.[27] Only after they have addressed the full complexities of net and strategic assessment can decision makers and military leaders grapple with questions of military actions and their potential effects.

There are few clear, unambiguous answers to the questions that policy makers and military leaders must ask in themselves in any net assessments. Above all, they must be willing to recognize that, while they may not change their desired outcomes, they may have to change the means and the effects they seek to produce. Effects are the conditions created through the combined interactions of multiple means and resulting adversary reactions. Political and military leaders will inevitably have to adjust the means to force the enemy (a complex adaptive system) to a state that satisfies the desired political end.

In 1861 Abraham Lincoln understood that the one, overarching goal of his administration would be preserving the Union. At the time Lincoln, like most of his advisers and many others in the North, believed that a relatively small group in the South had driven the southern states to leave the Union.[28] As Ulysses Grant noted in his memoirs,

> up to [the Battle of Shiloh] I... believed that the rebellion against the government would collapse suddenly and soon, if a decisive victory could be gained by any of its armies. [Forts] Donelson and Henry were such victories. An army of more than 21,000 men was captured or destroyed.... But when Confederate armies were collected which not only attempted to hold the line farther south, from Memphis to Chattanooga, Knoxville, and on to the Atlantic, but assumed the offensive and made such a gallant effort to regain what had been lost, then, indeed, I gave up all idea of saving the Union except by complete conquest.[29]

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[27] Along these lines it is worth noting that over the night of 12-13 February 1991, Coalition planners in the "Black Hole" had selected a wide variety of targets, seeking to destroy the political stability of the Iraqi regime. One of the targets, a newly operating backup bunker for the secret police, the Al Firdos bunker, also happened to be an air raid shelter for a number of Iraqis. The resulting collateral damage in effect ended the efforts to destabilize Saddam's regime by striking at the regime's political command and control systems. One last effort to attack the regime directly was cancelled by a major storm that swept across Iraq over the last night of the war. For the Al Firdos bunker incident, see Murray, *Operations*, pp. 206-208.

[28] James McPherson, *Battle Cry of Freedom, The Civil War Era* (Oxford: Oxford University Press, 1988), pp. 332-335.

[29] Ulysses S. Grant, *Memoirs*, vol. 2 (New York: Charles L. Webster & Company, 1885), p. 368.

Grant's depiction of the North's mis-estimate of Southern will and the resulting tenacity and ferociousness with which it would defend its independence was a necessary step in the evolution of a war winning strategy in the North. But the extent of that mis estimate by most Northerners can only be understood in light of the harsh press that Grant received for his victory at Shiloh, In fact, the losses of Union forces in that battle were no less heavy than innumerable battles that were to follow from summer 1862 on, but Shiloh was the first of the terrible killing battles, and Northern public opinion was shocked.

Similarly, the ruthless operational policy executed by Northern armies in Georgia and in the Shenandoah in 1864 would have been inconceivable to most in the North in 1862.[30] By spring 1864, the goal of Union had not changed in the North, but the understanding among the public and politicians as well as the military had changed. Support existed throughout the body politic for the ruthless carrying of the war to the South's civil population as the only means to undermine the will of Southern soldiers to continue the struggle and with the burden of frighteningly high casualty rates.[31]

To a certain extent strategic decision makers and the joint force commander are solving a complex maze. To do so, like the solver of a maze, they will find the solving of the puzzle by starting at the center with the goals that they wish to achieve and then working backwards. It is the designing of a clear, understandable outcome that provides at least a guide to reaching an understanding of the potential uses of military force to achieve effects that will potentially contribute to the strategic end.

The decision by President Roosevelt and his military leaders that war against the Axis Powers required "unconditional surrender" and an initial emphasis on the defeat of Germany provided a guide that allowed planners and operators to hammer out the operational, organizational, and economic requirements to achieve the desired strategic end. The greater the war and commitment, the easier will be the designing of the strategic outcome. By 1941 even the democracies were clear on the strategic outcome—the complete defeat of Nazi Germany and Imperial Japan—towards which they were aiming.[32] The clarity of that awesome task made the choice of means—massive mobiliza-

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[30] For the evolution of the strategic and operational effects Union armies aimed to achieve, see Murray et al., *An Historical Perspective on Effects-Based Operations.*

[31] For further discussion of these issues, see Murray et al., *An Historical Perspective on Effects-Based Operations.*

[32] For the extent of those strategic choices, see Williamson Murray and Allan R. Millett, *A War to Be Won, Fighting the Second World War* (Cambridge, MA: Harvard University Press, 2000).

tion of economies and population as well as the projection of military forces into the depths of the Japanese and Nazi empires—relatively easy to make.[33]

The problem that confronts U.S. policy makers and military leaders in the twenty-first century is both an advantage and a disadvantage. The potential challenges of the next half-century are not likely to be on the scale of World War II. However, their ambiguity and uncertain nature will make it more difficult to develop strategic outcomes that are relevant *and* acceptable to the majority of the American people.

In this regard, it is worth remembering that virtually the entire Senatorial group of the Democratic Party in fall 1990 saw no reason for the United States to intervene militarily to reverse Saddam Hussein's rape of Kuwait and his potential threat to the world's oil supplies—a man whose nation was on the brink of achieving nuclear capabilities, which only the Coalition's victory in the Gulf War prevented.

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[33] During the Second World War the British, with less economic and potential military power, had to make far greater sacrifices in committing themselves on this path than did the Americans. A British civil servant writing in 1944 put the extent of that commitment in the following terms: "The British civilian has had five years of blackout and four years of intermittent blitz. The privacy of his home has been periodically invaded by soldiers or evacuees or war workers requiring billets. In five years of drastic labour mobilization, nearly every man and every woman under fifty without young children has been subject to direction to work, often far from home. The hours of work average fifty-three for men and fifty overall; when work is done, every citizen who is not excused for reasons of family circumstances, work, etc., has had to do forty-eight hours a month duty in the home guard or civil defense. Supplies of all kind have been progressively limited by shipping and manpower shortages; the queue is part of normal life. Taxation is probably the severest in the world, and is coupled with enormous pressure to save. The scarce supplies, both of goods and services, must be shared with hundreds of thousands of United States, Dominion, and Allied troops; in the preparation of Britain, first as the base and then as the bridgehead, the civilian has inevitably suffered hardships spread over almost every aspect of his daily life." Quoted in W. K. Hancock and M. M. Gowing, *The British War Economy* (London: His Majesty's Stationary Office, 1949), p. 519.

Discourses and Translation of
Strategic Ends into Operational Effects

In the evolution of the strategic framework, military leaders must contribute to the understanding of strategic decision makers as to the potential costs and limitations on the employment of force.[34] This understanding is in fact a two-way street, for it is the operational commander, the joint force commander in current parlance, who must also gain a clear understanding of the strategic ends that policy makers seek. In the end he must translate the strategic and political outcome, for which war is being fought, into its operational context.

How is this task to be accomplished? Historians know a great deal about the political processes that result in the casting of grand strategy. Similarly they also understand and have written endlessly about the operational level of war. However, they have written little on the thin portion of the "hour glass" between strategic decision making on one hand and the conduct of military campaigns on the other, and it is in this space between the strategic and the operational where the translation takes place.[35]

This translation of strategy into hard campaign plans and the execution of those plans in the light of strategic guidance are essential to success in war. The discourses between

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[34] Along these lines one might reference the astonishment of the individual playing the American president in a recent war game on being informed that U.S. forces had suffered several hundreds of thousand casualties in liberating the capital of a U.S. ally. The conduct of effects-based operations at the strategic level demands the addressing of such issues as the costs of potential military actions, *before those* actions are launched. In spring 1944 Winston Churchill demanded an examination of the collateral damage that an aerial assault against the French transportation network by Bomber Command might cause. His concern reflected a fear that high civilian casualties might have a severely negative effect on Anglo-French relations *after* the war. Only after RAF heavy bombers had proven that they could hit targets such as marshaling yards with great accuracy—much to the surprise of Bomber Commands leaders—would Churchill sanction the effort to destroy the French transportation network. On the other hand no such assessment was conducted before U.S. troops barreled into Manila in early 1945. The terrible casualties suffered by the population of that city (more than 100,000 killed) put a permanent pall over U.S.-Filipino relations for the next fifty years.

[35] See Millett and Murray, "Lessons of War," p. 83.

the military and strategic decision makers represent the essential heart of that process; only by means of them can one hope to develop a sense of the pitfalls or advantages of proposed strategic and operational choices.[36] If the discourses take place with a serious effort at give-and-take, there is a real possibility of connecting means to ends. When they do not take place, strategy and operations often flounder in a disconnected fashion that can lead to defeat. These discourses are never a simple process. Rarely will they occur where argument and the clash of personal wills are absent. More often than not the conclusions of the process will involve ambiguities and uncertainties driven by mis-apprehensions and misunderstandings as to the nature of the enemy and his goals.

As suggested above, the creation of the strategic vision is not born unblemished. It is not something the "national command authority" simply hands down to the operational commander. Rather it must come from reasoned and argumentative discourses that pro-vide a clear understanding of what is intended. Those discourses are the means through which the political leadership gains a fuller understanding of the possibilities open to and the consequences of the use of military force in complex political strategic envi-ronments.[37]

Not surprisingly, throughout history, effects-based operations have resulted from dis-courses between political and military leaders about the relationships among the strate-gic goals, the available means, and the effects military actions must achieve to gain the strategic aims. Those discussions have never been easy in the best of times, and there is

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[36] The choice of the phrase "strategic decision makers" is deliberate. The often used phrase "National Command Authority (NCA)" so beloved of military documents entirely misses the enormous numbers of potential players in the evolution of strategic decisions and en-tirely misleads its readers by suggesting a simple direct process where the NCA hands down cookbook solutions to the military commander, who then executes strategic policy in a pure military environment, unsullied by political considerations. Nothing could be further from the truth, or more dangerous to the survival of the Republic. For the Joint Advanced War-fighting Program's description of "discourses," see footnote 10 on page 6.

[37] In a recent press conference dealing with the war in Afghanistan, Secretary of Defense Don-ald Rumsfeld made clear that discourses were on going between himself and the commander of Central Command, General Tommy Franks: "You know the truth does have a certain vir-tue. What I do, I am no Mozart and no Einstein. Those folks would go off in a room and figure out something brilliant by themselves. Most of the rest of us what we do we do with other people. And what I do with Central Command is I sit down with a fellow [General Tommy Franks] who knows an awful lot more about it than I do and we go back and forth and discuss it, and I learn a lot and he ends up doing a wonderful job for our country." Eme-diaMILLworks, Thursday, January 31, 2002, "Defense Secretary Donald Rumsfeld's Remarks to the National Defense University."

no reason to believe that they will be any easier in the future.[38] But however painful, discourses are the only way to connect strategy to the effects that military forces must seek. And without that connection, strategy will remain divorced from the realm of military power.

One should not think that the discourses between the joint force commander and strategic decision makers are the only ones in which he must involve himself. He must hold similar discourses with his staff to mold a commander's intent that fits the strategic framework resulting from his discourses with policy makers; with his component commanders to guide their actions; with the Allies of the United States to explain his plans and explore how best their forces and capabilities might contribute; and with the external world to keep public opinion both in the United States and the international community informed, responsive, and supportive of the military actions to be taken. Most obviously he must act and cause others to act in the pursuit of the military objectives that support the strategic goals.

The operational commander's existence must always be one of tension among a trinity that consists of the reflections as to what must be achieved as well as what has been achieved (effects), of discourses to understand what the intentions of others might be and make clear his own views as to what can be achieved, and of ruthless, swift actions to achieve strategic ends. History underlines the complexity and tempestuous nature of such discourses as well as the crucial role they have at times played in sharpening the understanding of policy makers and commanders alike. As Clausewitz suggests: "Everything in strategy is very simple, but that does not mean than everything is very easy."[39] It is the translation of strategic concept into actual military actions that represents the greatest difficulties.

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[38] Eliot A. Cohen in his masterful work on civil military relations has underlined exactly how contentious those relations have been in the past and how beneficial to the successful articulation of strategy by military operations those tensions are. See Eliot A. Cohen, *Supreme Command: Soldiers, Statesman, and Leadership in Wartime*, (New York: Free Press, 2002).

[39] Clausewitz continues on to point out that: "Once it has been determined, from the political conditions, what a war is meant to achieve and what it can achieve, it is easy to chart the course. But great strength of character, as well as great lucidity and firmness of mind, is required in order to follow through steadily, to carry out the plan, and not to be thrown off course by thousands of diversions.... It sounds odd, but everyone who is familiar with this aspect of warfare will agree that it takes more strength of will to make an important decision in strategy than in tactics." The history of Abraham Lincoln's conduct of the American Civil War is a case in point of the extraordinary constancy was required to see war through to conclusion, even though the desired strategic outcome was clear to the president from the beginning. Clausewitz, *On War*, p. 178.

The Conduct of Effects-Based Operations at the Operational Level of War

It is at the campaign level of war that the joint force commander earns his pay, for it is his job—and that of his staff—to articulate the operational concepts and plans that will translate military means into actions. Again a series of questions might best illuminate the effects that the joint force commander must seek to achieve. He should ask these questions not just of himself, but his staff, his planners, and his component commanders. The authors of the 1986 version of *US Army Field Manual 100-5* phrased those questions in the following fashion. In defining operational art they concluded that in the end it was finally:

> [t]he employment of military forces to attain strategic goals in a theater of war or theater of operations, through the design, organization, and conduct of campaigns and major operations.' Operational art [the authors] went on to say 'thus involved fundamental decisions about when and where to fight and whether to accept or decline battle. Its essence is the identification of the enemy's center of gravity…and the concentration of superior combat power against that point to achieve a decisive success.' Three questions were posed for the operational [commander and] planner:
>
> (1) What military conditions [effects] must be produced in the theater of war or operations to achieve the strategic goal? [ends]
>
> (2) What sequence of actions is most likely to produce that combination? [ways]
>
> (3) How should the resources of the force be applied to accomplish that [means] sequence of actions? [40]

How the joint force commander frames those questions is essential to establishing the effects his military forces seek to create. What this, of course, suggests is that the means-ends equation is of crucial importance in determining what path to follow:

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[40] Quoted in Richard M Swain, "Filling the Void: The Operational Art and the U.S. Army," in *The Operational Art,* (Westport, CT: Praeger, 1996).

whether for peace or war. But it is also crucial to understanding the kind of campaign he will wage and the effects that he will seek to achieve. For example:

▶ What effects are required to achieve the strategic ends? What means are available, immediately and in the long run?

▶ What are the potential pay offs for particular military actions in an operational sense? In a strategic sense? Are the costs of achieving particular effects too high in political terms? In military terms?

▶ What are the potential negative effects that could come as the result of military actions?

▶ Above all, is there a realistic balance between the ends and the means required to achieve the effects that will result in our strategic goals?

Such questions were asked by U.S. strategic decision makers in 1954 about the risks attendant upon intervening on the side of the French in Indochina. Those at the highest levels in 1964 failed to ask such questions about intervening in Vietnam.

There is nothing new in basing campaign plans and objectives on the effects necessary to achieve the larger strategic goals. In 1864 the goal of the great Union campaign that smashed through Georgia and down the Shenandoah Valley had specific effects at mind that would win the war for the North. One of the majors on Sherman's staff—ironically born in Alabama—noted as Union forces marched through the heart of Georgia:

It is a terrible thing to consume and destroy the sustenance of thousands of people. [But] while I deplore this necessity daily and cannot bear to see the soldiers swarm as they do through the fields and yards... nothing can end this war but some demonstration [to the Southern population] of their helplessness.... The Union and its government must be sustained, at any and every cost; to sustain it we must war upon and destroy the organized rebel forces—must cut off their supplies, destroy their communications... [and] produce among the *people of Georgia* a thorough conviction of the personal misery that attends war, and the utter helplessness and inability of their `rulers,' State or Confederate, to protect them... If that terror and grief and even want shall help to paralyze their husbands and fathers who are fighting us... it is mercy in the end.[41]

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[41] Quoted in McPherson, *Battle Cry of Freedom*, pp. 586-590.

Not only did Sherman's army live off the land, but it destroyed everything it could not use, food, forage for animals, barns, towns, railroads, and industrial plant. When Sherman began the march to the sea Grant had had some doubts as to the risks his subordinate would be running.[42] But he had no doubts as to the effects that Sherman was to achieve. At approximately the same time (fall 1864) Grant was instructing General Philip Sheridan to wreck the Shenandoah Valley from end to end. In Grant's imitable words, Sheridan's troops should

> eat out Virginia clear and clean as far as they go, so that crows flying over it for the balance of the season will have to carry their own provender with them....Take all provisions, forage and stock wanted for the use of your command. Such as cannot be consumed, destroy.[43]

The effect that Grant and Sherman had in mind for the Union campaigns of 1864 and 1865 was the collapse of Southern morale and eventually that of Confederate armies. As one Union soldier put it in terms of Southern morale in the Valley: "They have tasted the bitter fruits of secession, and have had enough of it."[44] The Confederate collapse came in spring 1865, and Lincoln's strategic goal of achieving the maintenance of the Union was achieved.

In a similar fashion the great Anglo-American campaign across north western Europe in 1944 and 1945 was executed with a clear strategic vision in mind. That vision, it should be noted was not simply to eradicate the terrible strategic danger that Nazi Germany represented to the world,[45] but also to position the military and political power of the

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[42] Nevertheless, Grant had written Sherman, his subordinate in command of the armies in the west: "I do not propose to lay down for you a plan of campaign, but simply lay down the work it is desirable to have done and leave you free to execute it in your own way." Grant, *Memoirs*, vol. 2, p. 131.

[43] Quoted in Mark Grimsley, *The Hard Hand of War, Union Military Policy Toward Southern Civilians, 1861-1865* (Cambridge: Cambridge University Press, 1995), p. 167.

[44] Grimsley, *The Hard Hand of War*, p. 168.

[45] One of a very few, Churchill recognized from the early 1930s on that Nazi Germany was not only a great evil, but that it also represented a great strategic danger to the democracies. But, of course, his views were regarded as old-fashioned and out of touch with a newer and more civilized age, where the waging of war for strategic or moral reasons was simply inconceivable. In 1934 he wrote in a column in the *Daily Mail* in 1934: "I marvel at the complacency of ministers in the face of the frightful experiences through which we have all so newly passed, I look with wonder at the thoughtless crowds disporting themselves in the summer sunshine, and upon this unheeding House of Commons, which seems to have no higher function than to cheer a minister; [and all the while, across the North Sea], a terrible danger

great Anglo-Saxon democracies in the heart of Europe when the conflict was over.[46] The overall commander of the joint and combined campaign was General Dwight David Eisenhower, one of the true greats in American military history. As a joint and combined commander, Eisenhower was responsible to Roosevelt and Churchill. In that relationship, he had to balance carefully the quite different perspectives of the American and British governments.[47]

In that task Eisenhower had often times to take into account the larger interests of the alliance over the narrow and often times parochial views and interests of his subordinates and fellow countrymen. To a great extent his emphasis on a broad-front advance rather than a narrowly focused drive by either Field Marshal Bernard Law Montgomery's Twenty-First Army Group or General Omar Bradley's Twelfth Army Group reflected political and long-term strategic realities.

While it may have made much greater operational sense to focus on a single massive punch across France into the Reich,[48] Eisenhower instinctively understood that the political fall out of emphasizing British forces over American forces, or vice versa, and the damage done to the long-term strategic goal of a continued Anglo-American alliance after the war by such an operational approach made the broad front advance preferable on the basis of strategic necessity. By emphasizing the political and strategic outcome and how military actions could best affect that outcome, Eisenhower played a major role in the winning of the Cold War even before World War II was over.

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is astir. *Germany is arming!*" Quoted in Martin Gilbert, *Winston S. Churchill*, vol. 5, *1922-1939* (London: Heinemann, 1976), p. 550.

[46] That aim was not so clear in the minds of American leaders, including Roosevelt, but it certainly was a major aim of Churchill.

[47] Historians have made much of the quarrels and differences between American and British leaders. What is missing in much of their discussions is an historical perspective which would underline how extraordinarily effective and coherent that alliance was *in comparison* to other alliances in history. And the very effectiveness of that alliance depended on and reflected the vigorous and contentious discourses that took place among Allied leaders at all levels.

[48] Montgomery argued for such a drive at the end of August and throughout September 1944 to be led by his army group. After the war, the British military pundit, Basil Liddell Hart argued that such a drive made far better sense than the broad front approach, but that George Patton rather than Montgomery should have led the drive.

Conclusion

The processes of strategic decision-making are never clear or easy. This has been true in the past and it will be true in the new century. The future will always remain opaque and uncertain, as human institutions attempt to chart their strategic course.[49] No matter how sophisticated technological aids might be, fog and friction will continue to dominate the landscape of strategy.[50] And, of course, bureaucratic inertia, incompetence, and parochialism will always muddy the waters of efficient and effective strategic decision making, as well as the translation of strategy into potential effects and then into actual military actions at both the operational and tactical levels. As one recent commentator noted about the difficulties for the making of strategy in the twenty-first century:

> In this bewildering world, the search for predictive theories to guide strategy has been no more successful than the search for such theories in other areas of human existence. Patterns do emerge from the past, and their study permits educated guesses about the range of potential outcomes. But the future is not an object of knowledge; no increase in processing power will make the owl of history a daytime bird. Similar causes do not always produce similar effects, and causes interact in ways unforeseeable even by the historically sophisticated. Worse still, individuals—with their ambitions, vanities, and quirks—make strategy.... Finally, conflict is the realm of contradiction and paradox.[51]

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[49] One of the major problems that confronts U.S. policy makers in thinking about the future is the manner with which the West, and Americans in particular, have philosophically regarded that future. The great classicist Bernard Knox has noted thusly about the difference between how the Ancient Greeks thought about the future and how we in the west have thought about it: "The early Greek imagination envisaged the past and the present as in front of us— we can see them. The future, invisible, is behind us…Paradoxical though it may sound to the modern ear, this image of our journey through time may be truer to reality than the medieval and modern feeling that we face the future as we make our way forward into it." Bernard Knox, *Backing into the Future: The Classical Tradition and Its Renewal* (New York: Norton, 1994), pp. 11-12.

[50] On the scientific reasons for why this is so, see in particular Barry D. Watts, *Friction in Future War*. See also Alan Beyerchen, "Clausewitz and Nonlinearity," *International Security*, 1992.

[51] MacGregor Knox, "Continuity and Revolution in the Making of Strategy," in *The Making of Strategy:* p. 645.

The discussion throughout this paper has not aimed at suggesting that there is a simple, clear strategic framework for establishing effects-based operations. Rather the aim must be to establish habits of thought and processes that whether at the onset of some great crisis or in its midst, policy makers and military leaders have the possibility of asking the right questions.

- ▶ What are America's strategic goals? What should the outcome look like?

- ▶ What kind of *political* as well as military effects do we need to seek? How might military effects best achieve those *political* ends?

- ▶ What realistic possibilities are open to the enemies of the United States? How could we best react to unexpected courses of action by our opponents?

- ▶ And how might we best adapt, as the context of our efforts, whether that context be political, strategic, operational, or tactical proves resistant to our efforts or even to rest on faulty assumptions and preconceived notions?

The problem then is to focus down on the narrow band of questions that count:

> [T]oo much complexity makes the mind seize. At a minimum [makers of strategy] must see clearly both themselves and potential adversaries, their strengths, weaknesses, preconceptions, and limits—through humility, relentless and historically informed critical analysis, and restless dissatisfaction even in victory. They must weigh imponderables through structured debates that pare away personal, organizational, and national illusions and conceits. They must squarely address issues that are bureaucratic orphans.... And in the end, makers of strategy must cheerfully face the uncertainties of decision and the dangers of action.[52]

Only with such an approach can American policy makers avoid disastrous mistakes at the strategic level. It is well to remember that the answers to such questions were available to American policy makers in 1964 and 1965. The Sigma War Games made clear that the North Vietnamese leadership had open to it courses of action that would prove disastrous to the American and Strategic approach. The conclusion of one of the Games set the answer in clear and unambiguous terms:

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[52] Knox, "Continuity and Revolution in the Making of Strategy," in *The Making of Strategy*, p. 645.

> Ultimately SIGMA II predicted that the escalation of American military in-
> volvement would erode public support for the war in the United States. Con-
> tinued political instability in Saigon drew into question the worthiness and
> dependability of America's ally, and the subtlety of the Communist strategy
> made it difficult for the U.S. government to sustain the case for military in-
> tervention…[Thus] SIGMA II questioned the fundamental assumption on
> which graduated response depended.[53]

Moreover, the books of Bernard Fall clearly delineated the nature of the opponent
against whom we were proposing to make a great crusade.[54] Yet, none of the senior pol-
icy makers and military leaders—with the exception of George W. Ball, Under Secretary
of State (1961-1966)—were willing to ask the right questions. The strategic decision-
makers of 1964 and early 1965 stand in stark contrast to their predecessors, including
the president, in 1954. The right questions, as framed by two U.S. generals, Matthew
Ridgway and James Gavin, resulted in the answer that the benefits in assisting the
French in a war in Indochina would not be worth the cost.[55]

Strategic decision-making has always taken place under conditions of enormous pres-
sure and uncertainty. Crises rarely, if ever, grow slowly; they crash down on the decision
maker and military leader with virtually no warning. More often than not the response is
to act before thinking; politicians and leaders are usually men of action. Not surpris-
ingly, Winston Churchill noted on papers discussing issues he thought were important:
"*Action this day*!" And in such an atmosphere where everyone in government and outside
of it is demanding action, it is not surprising that the crucial first questions never get
asked. As one current analyst has noted:

> There is only so much that any human can absorb, digest and act upon in a
> given period of time. The greater the stress, the more individuals will ignore
> or misrepresent data, mistake or misconstrue information, and the greater
> will be the prospects for confusion, disorientation, and surprise.... [More-
> over], the spatial and, essentially, the temporal distribution of information
> relevant to decisions in war means that many key pieces will remain inacces-
> sible at any given place. Those who have held senior positions in corpora-

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[53] McMaster, *Dereliction of Duty,* p. 157.

[54] See in particular Bernard Fall, *The Two Vietnams, A Political and Military Analysis* (New York:
Frederick A. Praeger Publishers, 1967). As General William Westmoreland was proud to
point out in his memoirs, he had Bernard Fall's books by his bed stand, but never had time
to read them.

[55] See Bernard Fall, *Hell in a Very Small Place, The Siege of Dien Bien Phu* (Philadelphia: J. B. Lip-
pincott, 1967).

tions or military services need only reflect on how much they did not know about what was taking place in their own organizations to appreciate the reality of information being temporarily inaccessible.[56]

The conditions and pressures under which future policy makers and military leaders will operate will in most respects resemble those of the past. But approaching each crisis within a disciplined framework offers the best possibility of asking such crucial questions as the following:

- ▶ What are the outcomes that are possible?

- ▶ What would be the effects most likely to achieve the best strategic outcome?

- ▶ What might the collateral effects on allies and international opinion be with certain courses of action?

- ▶ What are the means at hand?

- ▶ And is it likely that public support will remain constant in the pursuit of our goals?

The linking of the strategic outcome to means, military actions, and potential effects at least offers the possibility that the United States can proceed down a coherent path. Moreover, such a strategic framework offers the potential of overcoming or at least addressing the uncertainties and ambiguities that will always mark the making of strategy.

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[56] Watts, *Friction in Future War*, p. 91.

Appendix A.
Historical Background to Discourses

In earlier periods, the fact that monarchs were often military commanders as well lessened the need for dialogue. Frederick the Great was Prussia's king, prime minister, and field commander all rolled into one.[57] However, Napoleon was the last European ruler that fit within this paradigm. By the end of his reign even his genius could no longer bring order to the myriad factors affecting war, strategy, and the conduct of operations.[58] The increasing complexity of both war and the societies and governments that supported it, resulted in a growing divergence between those who framed policy and strategy and those who conducted military operations.

This became clear in the American Civil War. There, Abraham Lincoln struggled to find a fit between his overall strategy and the conduct of operations. In the first two years of the war he found it almost impossible to persuade Union military commanders of the need to relate military actions to the strategic goals his government was seeking. The commander of the Army of the Potomac, General George McClellan, repeatedly lampooned Lincoln's military instincts.[59] It was only when Lincoln discovered Grant and

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[57] It is worth noting that earlier in the eighteenth century Winston Churchill's great ancestor, the Duke of Marlborough, had confronted considerable difficulties in maintaining a coherent relationship with the political powers back in London, especially when the Tories came to power after overthrowing the Whig ministry. For Marlborough's political and strategic position as an operational commander on the Continent during the War of Spanish Succession (1702-1715), see Winston Churchill, *Marlborough, His Life and Times*, 4 vols (New York: Charles Scribner's Sons, 1933–1938). See also David Chandler, *Marlborough as Military Commander* (London: B. T. Batsford Ltd, 1973).

[58] Nothing showed this more clearly than the Emperor's refusal to negotiate a compromise peace with the Allies in the 1813 and 1814 campaigns despite the overwhelmingly superior military forces that Russia, Prussia, and Austria were able to put in the field (forces largely supported by the large subsidies that the British supplied to the Coalition throughout the last war years). For a discussion of these and other issues, see Henry Kissinger, *A World Restored: Metternich, Castlereagh, and the Problems of Peace 1812-1822* (Boston: Houghton Mifflin, 1973).

[59] In one case Lincoln suggested to McClellan that if all the Union armies advanced they would place such great pressure on the Confederates that somewhere the Confederate defenses were bound to break. McClellan commented to his wife that nothing better showed Lincoln's

promoted him to overall command of the Union's field armies that strategy and military operations fell into place. In fact, for one of the few times in history there was no need for contentious discourses because Grant possessed an instinctive understanding of the president's strategic vision and the political constraints under which Lincoln was acting.

Nothing reflects this understanding more clearly than the conduct of the Union's military operations and strategy in 1864. In the spring of that year, Grant developed a five-pronged strategy that would probably have resulted in Union victory by the fall of 1864.[60] However, for success his strategy demanded that Union forces in Bermuda Hundred[61], the Shenandoah Valley, and along the Mississippi do their part. Commanded by political generals with connections to the Democratic Party, they failed egregiously. Yet, before, during, and after 1864, Grant never criticized Lincoln for saddling his efforts with such inept political commanders—because he understood that those men and their placement were essential to winning the presidential election that fall. And whatever military victories the Union armies might win, if Lincoln lost the election, the conceptions and aims for which the war had been fought were in danger of being abandoned.

Perhaps the greatest cause of the catastrophe in the First World War was the failure of any meaningful discourses to take place between what one general derisively termed the "frocks" (the politicians) and generals. In the case of the Central Powers (Germany and Austria-Hungry) the politicians abdicated their responsibilities and turned the war over

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mistaken grasp of strategy. In 1864 Grant's operational conception in fact followed directly along the lines that Lincoln suggested: "it is my aim to work all parts of the army together, and somewhat toward a common center." U.S. Grant, *Memoirs*, vol. 2, p. 130.

[60] Just prior to the beginning of the 1864 campaign, Grant described that strategy in a letter to the commander of the Army of the Potomac, Major General George Meade in the following terms (a similar letter also was sent out to Sherman with relatively few differences): "[Major General] Banks has been instructed to... move on Mobile.... [Major General] Sherman will move at the same time as you do,... [Lieutenant General, CSA] Joe Johnston's army being his objective point, and the heart of Georgia his ultimate aim... [Major General] Sigel cannot spare troops from his army to reinforce either of the great armies, but he can aid them by moving directly to his front....With [Major Generals] Smith and Gilmore,[Major General] Butler will seize City Point, and operate against Richmond from the south side of the river. His movement will be simultaneous with yours. Lee's army will be your objective point. Wherever Lee goes, there you will go also." Grant, *Memoirs*, vol. 2, pp. 134-135.

[61] However, after its defeat at Drewry's Bluff, the Union Army of the James was trapped at Bermuda Hundred on the Peninsula.

to the military.[62] The generals in turn fought the war with an approach that largely confused tactics with strategy. Not surprisingly, given the extraordinary brainpower in their general staff, the Germans developed combined arms tactics in a fashion that returned maneuver to the conflict by 1918. However, that success was more than counterbalanced by strategic errors, the most egregious of which, unrestricted submarine warfare, brought the United States into the war in 1917 and tipped the balance of power drastically against Germany.[63]

But relations were almost as bad among the politicians and military leaders in the west. In Britain the Asquith government hardly interfered in military matters, the one exception being Winston Churchill's enthusiastic support for the Dardanelles expedition. That one strategic move to win the war somewhere else but on the blood-soaked Western Front foundered on the lack of effective discourses between the politicians—including Churchill—and Britain's military leaders. The result was a series of half-measures that never quite overturned the Turks' defensive measures and that eventually resulted in defeat, a defeat that adversely affected Churchill's reputation and from which he would not fully recover until 1940.[64]

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[62] The abdication of the civilian leadership began well before the war broke out, when the political leaders refused to examine the political and strategic implications of the Schlieffen Plan, but rather accepted it without even discussions with the Reich's military leaders. The absence of discourses in peacetime then carried over into war. For the failure of such discourses in Germany from the 1890s through to the outbreak of the First World War, see in particular Gerhard Ritter's *The Sword and the Scepter*, 4 vols., translated by Heinz Norden (Coral Gables, FL: University of Miami Press, 1969–1973).

[63] The absence of such discourses because of the abdication of responsibility on the part of civilian leaders also shows clearly in the decision by the German military leadership to test poison gas on the Western Front in April 1915. This decision resulted in a vast political backlash against Germany among the neutrals, particularly in the United States. Ironically, the military fallout was almost as deadly to the German position because the prevailing winds on the Western Front blew from west to east and Germany possessed only a limited supply of rubber crucial to the making of gas masks.

[64] Historians are still squabbling about whether the Dardanelles expedition offered the strategic advantages that Churchill and others suggested at the time and afterwards. What is not a matter of argument is that extraordinary military incompetence at the *tactical level* contributed significantly to the defeat, while the *operational conduct* of the campaign resulted in a series of attacks that were never quite enough to overwhelm the unprepared Turks. In any case, the disaster ended what prospects Churchill's strategic conceptions might have had. For the most recent account of the Gallipoli campaign, see Nigel Steel and Peter Hart, *Defeat at Gallipoli* (London: Macmillan, 1994). The classic account of the campaign and still worth reading is Alan Moorehead, *Gallipoli* (London: Hamish Hamilton, 1956).

In late 1916 David Lloyd George replaced Herbert Asquith as the prime minister. Lloyd George possessed more of a strategic vision than did his predecessor, and he was certainly willing to meddle in military matters. But he was never willing to take on the generals in a direct confrontation.[65] Nevertheless, he correctly estimated that the British Expeditionary Force was not capable of winning a decisive victory on the Western Front in 1917. Therefore, he wished to delay a major Allied offensive until 1918, when the Americans would begin to arrive in strength. On the other hand, Field Marshal Sir Douglas Haig passionately believed that his forces could win a great victory.

Unfortunately for those who would fight, no discourses took place between a political leadership unwilling to confront its generals with an alternative strategy and a commander-in-chief who was almost completely inarticulate. As a result, the terrible Flanders offensive occurred. The Battle of Passchendaele, fought under conditions which are unimaginable today, almost broke the British Army.[66] By the end of the battle Lloyd George was determined to prevent Haig from launching another such offensive. But instead of either confronting the Field Marshal or sacking him, Lloyd George took the expedient of refusing to send reinforcements to Flanders. That shut down the battle, but left the British Expeditionary Force so short of manpower that it almost collapsed under the weight of the German spring offensive in March 1918.[67]

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[65] Instead Lloyd George largely confined himself to taking cheap shots at his generals behind their backs, such as his comment that "Haig was brilliant to the top of his boots." In his memoirs Lloyd George included the following entry in the index under the heading of "military mind:" "narrowness of, 3051; stubbornness of, not peculiar to America, 3055; does not seem to understand arithmetic, 3077; its attitude in July 1918, represented by Sir Henry Wilson's fantastic memorandum of 25/7/18, 3109; obsessed with North-West Frontier of India, 3119; impossibility of trusting, 3124; regards thinking as a form of mutiny, 3422." David Lloyd George, *War Memoirs*, vol. 6, (London: Ivor Nicholson & Watson, 1936), p. 3497.

[66] The best account of the battle and the responsibility of both politicians and generals for the disaster is Robin Prior and Trevor Wilson, *Passchendaele, The Untold Story* (New Haven, CT: Yale University Press, 1996). See also Leon Wolff, *In Flanders Fields, The 1917 Campaign* (New York: Time Incorporated 1958). The nature of those conditions and the completed absence of discourses between the senior leadership of the British Expeditionary Force and its subordinates are suggested by the visit of Haig's Chief of Staff, General Lancelot Kiggell, to the front lines after the conclusion of the battle. In viewing the dismal scene, an appalled Kiggel commented: "Good God, did we really send men to fight in that." His guide who had fought in the battle laconically replied: "It's worse further on up." Quoted in Wolff, *In Flanders Fields*, p. 383.

[67] For that offensive, see particularly Martin Middlebrook, *The Kaiser's Battle, 21 March 1918: The First Day of the German Spring Offensive* (London: Allan Lane, 1978).

Matters improved in the next war—at least for the Anglo-American powers, if not for their opponents. In the case of the latter, the Japanese services failed even to carry out discourses between themselves, much less with the politicians. In the case of the Germans, the military got its wish to have a political leadership that could mobilize the population to the maximum extent. But the military also got a political leadership that refused to conduct discourses with its leaders. In 1938 the Chief of the General Staff, General Ludwig Beck, attempted to conduct a discourse with Hitler over the unpreparedness of the army for a major war over Czechoslovakia, not to mention the Western Powers. General Beck received virtually no support from the army's other senior leaders, and in August 1938 resigned in protest over Hitler's refusal even to discuss the strategic and political situation.[68] From this point on *Wehrmacht* leadership simply received its marching orders from Hitler, usually delivered in verbose and repetitive lectures during which the generals were not allowed to question the wisdom of *Der Führer*.

Luckily, matters improved enormously in the case of the Western Powers during the Second World War. In the United States Roosevelt maintained open lines with his military leaders that allowed for considerable discourse and debate.[69] At times the arguments were contentious, the sharpest occurring over summer 1942 as to what strategy the United States should pursue in Europe. General George Catlett Marshall, Jr., the U.S. Army's Chief of Staff, and his planners argued that the United States should commit its forces only in a great landing on the coast of France.

The British on the other hand refused to consider such a project in 1942 and were dubious about the prospects for such a landing in 1943. They proposed that Anglo-American forces land instead in fall 1942 on the coast of French North Africa. Roosevelt was not particularly concerned with the operational choice, but for political reasons—to keep American attention centered on the war against Germany—he wanted to see U.S. forces committed to Europe in 1942. The discourses failed to reach a compromise, and in the end Roosevelt had to order General Marshall to provide the command-

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[68] The attitudes of the army's senior leaders is summed up by a letter that the future field marshal Erich von Manstein wrote to Beck in July 1938. In it Manstein argued that Beck should not resign from his position because such a resignation might threaten the army's dominant position within the German military structure. After all Manstein argued, "Hitler has so far always estimated the political situation correctly." Bundesarchiv/Militärarchiv, N 28/3 Beck Nachlass.

[69] For Roosevelt as war leader and his relationships with senior U.S. military leaders, see particularly Eric Larrabee, *Commander in Chief, Franklin Delano Roosevelt, His Lieutenants and Their War* (New York: Harper and Row Publishers, 1987).

ers and forces for Operation Torch, the invasion of North Africa, which was finally launched in early November 1942.[70]

The discourses between Churchill and his military leaders were more contentious than those between Roosevelt and his military advisers. Nevertheless, Churchill, however much he may have wished to, never overruled his military advisers. For the most part, his discourses with Royal Air Force leaders were relatively civil. Only in May 1940, when Churchill was desperately attempting to keep France in the war, was there considerable dissension, in this case as to whether to send additional fighter squadrons from Fighter Command. Air Marshal Sir Hugh Dowding argued strenuously against further reinforcements because they would severely affect Fighter Command's ability to defend the British Isles.

Confronted with that military assessment, Churchill agreed that Britain was not in a position to help France further, at least in terms of additional fighters.[71] In fact, whatever Churchill's reputation among historians for badgering his military unmercifully, he clearly respected those who stood up with reason for what they believed. In July 1940 in response to efforts to remove Dowding, Churchill wrote Archibald Sinclair, the civilian minister in charge of the Air Ministry:

> Personally I think [Dowding] is one of the best men you have got, and I say this after having been in contact for about two years. I have greatly admired the whole of his work with Fighter Command, and especially in resisting the clamour for numerous air raid warnings, and the immense pressure to dissipate the Fighter strength during the great French battle.[72]

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[70] General Marshall was correct in that Operation Torch diverted Allied resources into the fighting in the Mediterranean throughout 1943, making the great landing on the coast of France impossible until spring 1944. Nevertheless, Roosevelt was correct that a landing on the coast of France in 1943 would have been a dubious proposition when taking into consideration the military balance of power (the Battle of the Atlantic and the gaining of air superiority over the European Continent in particular) and American politics at that time.

[71] For sources on these discourses over the ability of Fighter Command to support the French with additional squadrons, see Basil Collier, *The Defence of the United Kingdom* (London: Her Majesty's Stationary Office, 1957), pp. 109-111; John Terraine, *The Right of the Line, The Royal Air Force in the European War, 1939-1945* (London: Hodder and Stoughton, 1985), pp. 138-140; Francis K. Mason, *Battle Over Britain, A History of the German Air Assaults on Great Britain, 1917-1918 and July-December 1940, and of the Development of Britain's Air Defences Between the World Wars* (Garden City, NY: Doubleday & Company, 1969); and Martin Gilbert, *Winston S. Churchill*, vol. 6, *Their Finest Hour* (Boston: Houghton Mifflin Company, 1983), pp. 456-458.

[72] Gilbert, *Winston S. Churchill*, vol. 6, *Their Finest Hour*, p. 658.

However, Churchill's discourses with the Chief of the Imperial General Staff, Field Marshal Alan Brooke, were contentious throughout the war. There is no doubt that the prime minister's constant badgering rubbed Brooke's nerves raw—a condition noted in the number of innumerable wearied entries in the Field Marshal's diaries. In August 1943, he noted in his diary:

> Another poisonous day! [A] difficult [chiefs of staff meeting] till 12 noon when we went to the Citadel to see the [prime minister] to discuss South East Asia operations. I had another row with him…He refused to accept that any general plan was necessary, recommended a purely opportunistic policy and behaved like a spoilt child that wants a toy in a shop irrespective of the fact that its parents tell it that it is no good! Got nowhere with him, and settled nothing! This makes my [agreements] with the Americans practically impossible! [73]

In the end Churchill would come around however much some impractical idea may have lit his interest. On the other hand, his instincts about strategy and the military situation were often completely on target. The act of marrying strategic goals to the means at hand through contentious, at times furious, discourses worked out to the great advantage of the Allied cause and played a major role in winning the war

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[73] Field Marshal Lord Alanbrooke, *War Diaries, 1939-1945*, ed. by Alex Danchev and Daniel Todman (Berkley, CA: University of California Press, 2001), p. 444. Clearly Brooke used his diary entries as a means to work out the enormous frustrations and pressures that he felt from running the army and serving as the senior member of the Chiefs of Staff Committee.

Appendix B. Bibliography

Alanbrooke, Field Marshal Lord. *War Diaries, 1939-1945.* ed. by Alex Danchev and Daniel Todman. Berkley, CA: University of California Press, 2001.

al-Khalil, Samir. *Republic of Fear, The Politics of Modern Iraq.* Berkeley, CA: University of California Press, 1989.

Beyerchen, Alan. "Causewitz and Nonlinearity." *International Security*, 1992.

Chandler, David. *Marlborough as Military Commander.* London: B. T. Batsford Ltd, 1973.

Chandler, David. *The Campaigns of Napoleon.* New York: Macmillan Publishing Co., 1966.

Churchill, Winston. *Marlborough, His Life and Times.* 4 volumes. New York: Charles Scribner's Sons, 1933–1938.

Clausewitz, Carl von. *On War.* Tr. by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1975.

Cohen, Eliot. A. *Supreme Command: Soldiers, Statesman, and Leadership in Wartime.* New York: Free Press, 2002.

Collier, Basil. *The Defence of the United Kingdom.* London: Her Majesty's Stationary Office, 1957.

Fall, Bernard. *Hell in a Very Small Place, The Siege of Dien Bien Phu.* Philadelphia: J. B. Lippincott, 1967.

Fall, Bernard. *The Two Vietnams, A Political and Military Analysis.* New York: Frederick A. Praeger. Publishers, 1967.

Gilbert, Martin. *Winston S. Churchill.* Vol. 5. *1922-1939.* London: Heinemann, 1976.

Gilbert, Martin. *Winston S. Churchill.* Vol. 6. *Their Finest Hour, 1939-1941.* Boston: Houghton Mifflin Company, 1983.

Grant, U.S. Grant. *Memoirs.* Vol. 2. New York: Charles L. Webster & Company, 1885.

Grimsley, Mark. *The Hard Hand of War, Union Military Policy Toward Southern Civilians, 1861-1865.* Cambridge: Cambridge University Press, 1995.

Hancock, W. K. and M. M. Gowing. *The British War Economy.* London: His Majesty's Stationary Office, 1949.

Herwig, Holger. *The First World War, Germany and Austria Hungry, 1914-1918.* London: Arnold Publishers, 1997.

Joint Advanced Warfighting Program, Institute of Defense Analyses Brief. *Discourses and the Joint Force Commander.* December 2001.

Kershaw, Ian. *Volksmeinung und Propaganda im Dritten Reich.* Stuttgart, 1980.

Kissinger, Henry. *A World Restored: Metternich, Castlereagh, and the Problems of Peace 1812-1822.* Boston: Houghton Mifflin, 1973.

Knox, Bernard. *Backing into the Future: The Classical Tradition and Its Renewal.* New York: New York: Norton, 1994.

Knox, MacGregor. "Continuity and Revolution in the Making of Strategy." In *The Making of Strategy: Rulers, States, and War.* ed. by Williamson Murray, MacGregor Knox, and Alvin Bernstein. Cambridge: Cambridge University Press, 1994.

Larrabee, Eric. *Commander in Chief, Franklin Delano Roosevelt, His Lieutenants and Their War.* New York: Harper and Row Publishers, 1987.

Lloyd George, David. *War Memoirs.* Vol. 6. London: Ivor Nicholson & Watson, 1936.

Manstein, Erich von. Letter to Ludwig Beck. *Bundesarchiv/Militärarchiv*, N 28/3 Beck *Nachlass*, July 1938.

Mason, Francis K. *Battle Over Britain, A History of the German Air Assaults on Great Britain, 1917-1918 and July-December 1940, and of the Development of Britain's Air Defences Between the World Wars.* Garden City, NY: Doubleday & Company, 1969.

McMaster, H. R. *Dereliction of Duty, Lyndon Johnson, Robert McNamara, The Joint Chiefs of Staff and the Lies That Led to Vietnam.* New York: Harper Collins Publishers, 1997.

McPherson, James. *Battle Cry of Freedom, The Civil War Era.* New York: Oxford University Press, 1988.

Middlebrook, Martin. *The Kaiser's Battle, 21 March 1918: The First Day of the German Spring Offensive.* London: Allan Lane, 1978.

Millett, Allan R. and Williamson Murray. "The Lessons of War." *The National Interest,* Winter 1988/1989.

Moorehead, Alan. *Gallipoli.* London: Hamish Hamilton, 1956.

Murray, Williamson. "Air War in the Gulf: The Limits of Air Power." *Strategic Review*, Winter 1998.

Murray, Williamson. *The Change in the European Balance of Power, The Path to Ruin.* Princeton, NJ: Princeton University Press, 1985.

Murray, Williamson. *German Military Effectiveness.* Baltimore, MD: Nautical and Aviation Press, 1985.

Murray, Williamson. *Luftwaffe.* Baltimore, MD: Nautical and Aviation Press, 1985.

Murray, Williamson. *Operations.* Vol. 2, Report 1, *Gulf War Air Power Survey.* Ed. by Eliot A. Cohen. Washington: DC: U.S. Government Printing Office, 1993.

Murray, Williamson and Allan R. Millett. *Calculations, Net Assessment and the Coming of the Second World War.* New York: The Free Press, 1992.

Murray, Williamson and Allan R. Millett. *A War to Be Won, Fighting the Second World War.* Cambridge, MA: Harvard University Press, 2000.

Murray, Williamson, MacGregor Knox, and Alvin Bernstein. *The Making of Strategy: Rulers, States and War.* Cambridge: Cambridge University Press, 1994.

Murray, Williamson et al. *An Historical Perspective on Effects Based Operations.* IDA Paper P-3606. Alexandria, VA: Institute for Defense Analyses, December 2002.

Ogarkov, Nikolai. "Interview with Marshal of the Soviet Union N.V. Ogarkov, The Defense of Socialism: Experiences of History and the Present Day." *Krasnaya zvezda.* 1st edition, 9 May 1984.

Paret, Peter. *Clausewitz and the State.* Oxford: The Clarendon Press, 1976.

Prior, Robin and Trevor Wilson. *Passchendaele, The Untold Story.* New Haven, CT: Yale University Press, 1996.

Ritter, Gerhard. *The Sword and the Scepter, The Problem of Militarism in Germany.* 4 vols. Translated by Heinz Norden. Coral Gables, FL: University of Miami Press, 1969, 1970, 1972, 1973.

Rumsfeld, Donald. "Defense Secretary Donald Rumsfeld's Remarks to the National Defense University." EmediaMILLworks, Thursday, January 31, 2002.

Steel, Nigel and Peter Hart. *Defeat at Gallipoli.* London: Macmillan, 1994.

Swain, Richard M. "Filling the Void: The Operational Art and the U.S. Army." In *The Operational Art,* Westport, CT: Praeger, 1996.

Terraine, John. *The Right of the Line, The Royal Air Force in the European War, 1939-1945*. London: Hodder and Stoughton, 1985.

US Army. *US Army Field Manual* 100-5. 1986.

Watts, Barry D. *Friction in Future War*. Washington, DC: National Defense University Press, 1996.

Watts, Barry. *Effects and Effectiveness*. Vol. 2, Report 2, *Gulf War Air Power Survey*. Ed. by Eliot A. Cohen. Washington, DC: Government Printing Office, 1993.

Wolff, Leon. *In Flanders Fields, The 1917 Campaign*. New York: Time Inc., 1958.

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The Joint Experiment J9901: Attack Operations Against Critical Mobile Targets, Joint Advanced Warfighting Program, IDA Paper P-3530, September 29, 2000. Prepared for the US Joint Forces Command.

Joint Warfighting Experimentation: Ingredients for Success, James H. Kurtz, IDA Document D-2437, September 2000.

Joint Advanced Warfare Seminar, James H. Kurtz, Daniel E. Moore, and Joel B. Resnick, IDA Document D-2346, July 1999.

Workshop on Advanced Technologies and Future Joint Warfighting, April 8–10, 1999: Summary of Proceedings, William J. Hurley, Phillip Gould, and Nancy P. Licato, IDA Document D-2343, May 1999.

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Final Papers, Unpublished, Restricted Distribution

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Notes

REPORT DOCUMENTATION PAGE		Form Approved OMB No. 0704-0188

1. REPORT DATE (DD-MM-YY)	2. REPORT TYPE	3. DATES COVERED (From – To)
January 2004	Study (Final)	

4. TITLE AND SUBTITLE

Thoughts on Effects-Based Operations, Strategy, and the Conduct of War

5a. CONTRACT NO.
DASW01-04-C-0003

5b. GRANT NO.

5c. PROGRAM ELEMENT NO(S).

6. AUTHOR(S)

Williamson Murray with LTC Kevin Woods, USA

5d. PROJECT NO.

5e. TASK NO.
AI-8-1627

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Joint Advanced Warfighting Program – Institute for Defense Analyses
4850 Mark Center Drive
Alexandria, VA 22311-1882

8. PERFORMING ORGANIZATION REPORT NO.
IDA Paper P-3869

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

Deputy Under Secretary of Defense for Advanced Systems & Concepts
Office of the Under Secretary of Defense for Acquisition, Technology, & Logistics
Room 3D833, 3700 Defense Pentagon
Washington, DC 20301-3700

10. SPONSOR'S / MONITOR'S ACRONYM(S)
UDSD (AS&C), OUSD (AT&L)

11. SPONSOR'S / MONITOR'S REPORT NO(S).

12. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for public release, unlimited distribution: October 6, 2004.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

Advances in conceptual thinking have not kept up with advances in technology and precision. Much of the thinking about the uses of precision and stealth to create effects-based operations (EBO) has instead focused on the tactical employment of weapons systems. Military thinkers have focused on target destruction rather than on the psychological impact of military actions, despite evidence that war has remained a psychological endeavor. This paper examines how policy makers and military leaders should use EBO to achieve strategic, operational, and psychological effects, rather than focusing operations solely on the technological or tactical problems involved in hitting targets. Historically, leaders who were victorious in war (and its aftermath) had posed hard questions to their subordinates as to the possible strategic and political effects that potential military courses of action might have. From their examination of these historical examples, the authors of this paper conclude that the linking of the strategic outcome to means, military actions, and potential effects at least offers the possibility that the United States can proceed down a coherent path. Moreover, such a strategic framework offers the potential of overcoming or at least addressing the uncertainties and ambiguities that will always mark the making of strategy.

15. SUBJECT TERMS

Concept, discourses, doctrine, effects-based operations (EBO), Indochina, operations, Persian Gulf War, precision strike, psychological operations, stealth, strategy, tactics, U.S. Civil War, Vietnam, World War I, World War II.

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NO. OF PAGES	19a. NAME OF RESPONSIBLE PERSON
			UU	66	Mrs. Sue C. Payton Deputy Under Secretary of Defense (Advanced Systems & Concepts)
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include Area Code)
U	U	U			(703) 697-6446